



# Pervasive Collaborative Computing Environment (PCCE)

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PI: Deb Agarwal

Charles McParland, Marcia Perry, Sachiko  
Halper, and Miron Livny (UW, Madison)

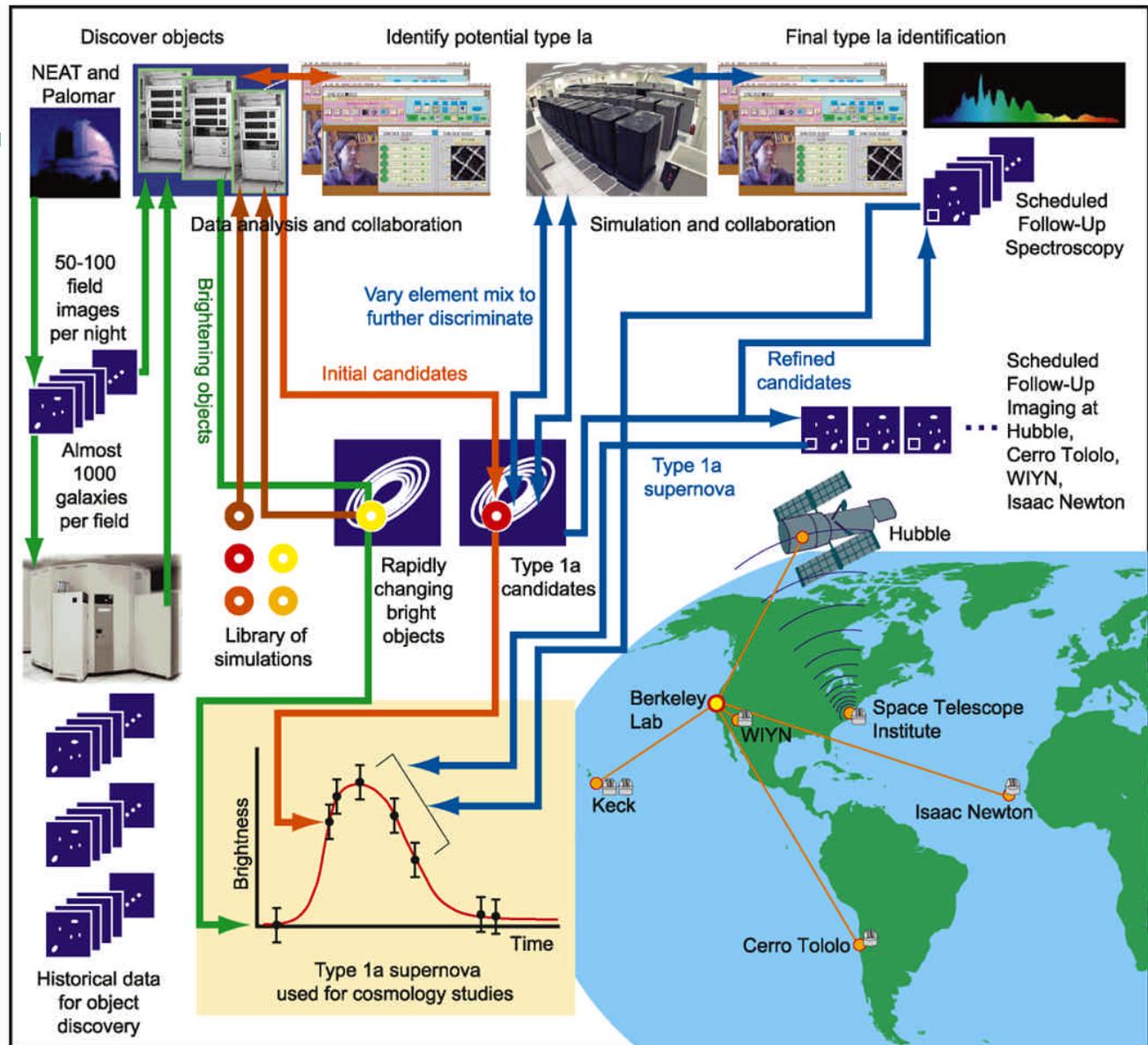
Distributed Systems Department  
Lawrence Berkeley National Laboratory

# PCCE Goals



- ? Focus on providing collaboration tools that enable connectivity and collaboration on a 'continuous' basis
- Target compute intensive collaborations
- ? Leverage off of the Grid computing environment (e.g. security and directory services)
- ? Develop workflow tools that will enable coordination of Grid computing processes and human tasks in a workflow framework
- ? Support the continuum of collaborative interaction (synchronous and asynchronous)
- Web-based interface for ease of use/installation

# Supernova Factory Collaboration



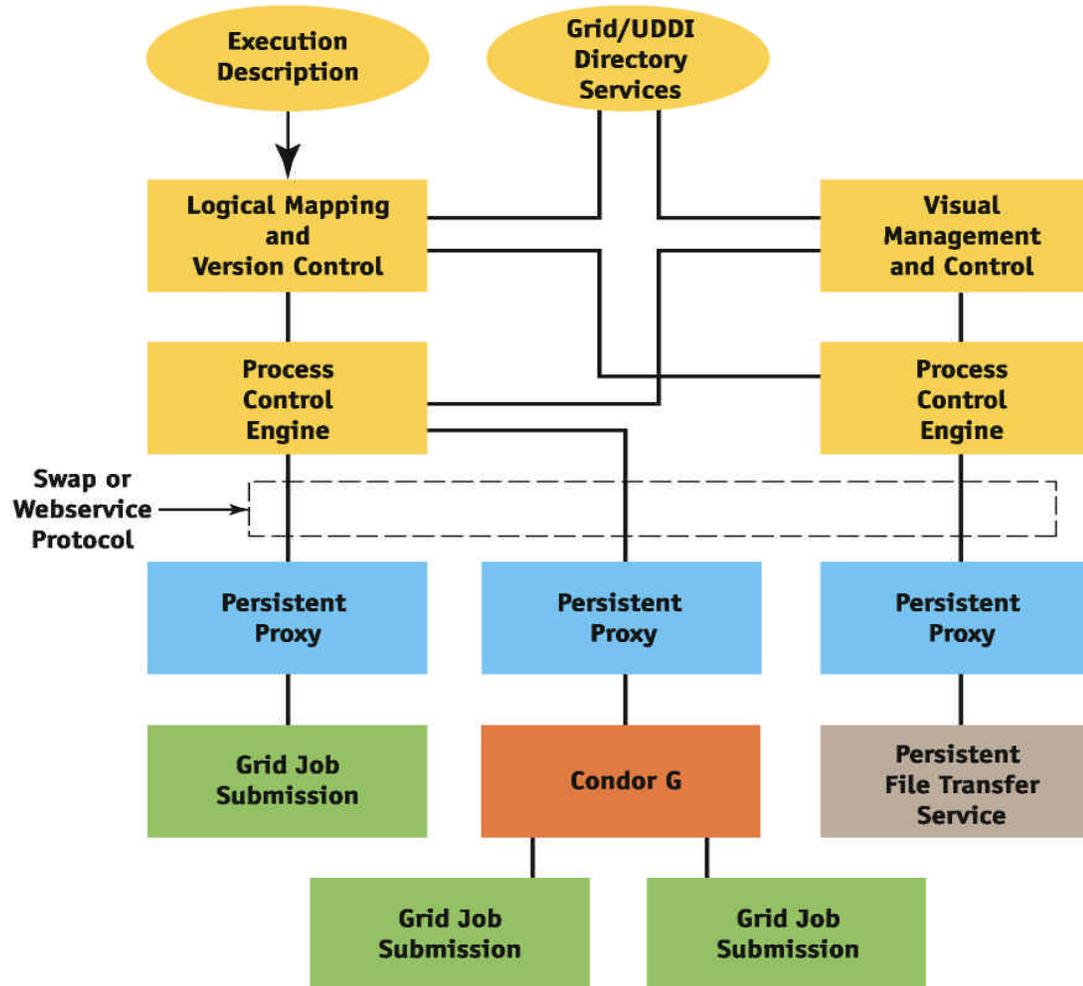
# Initial Target Activities

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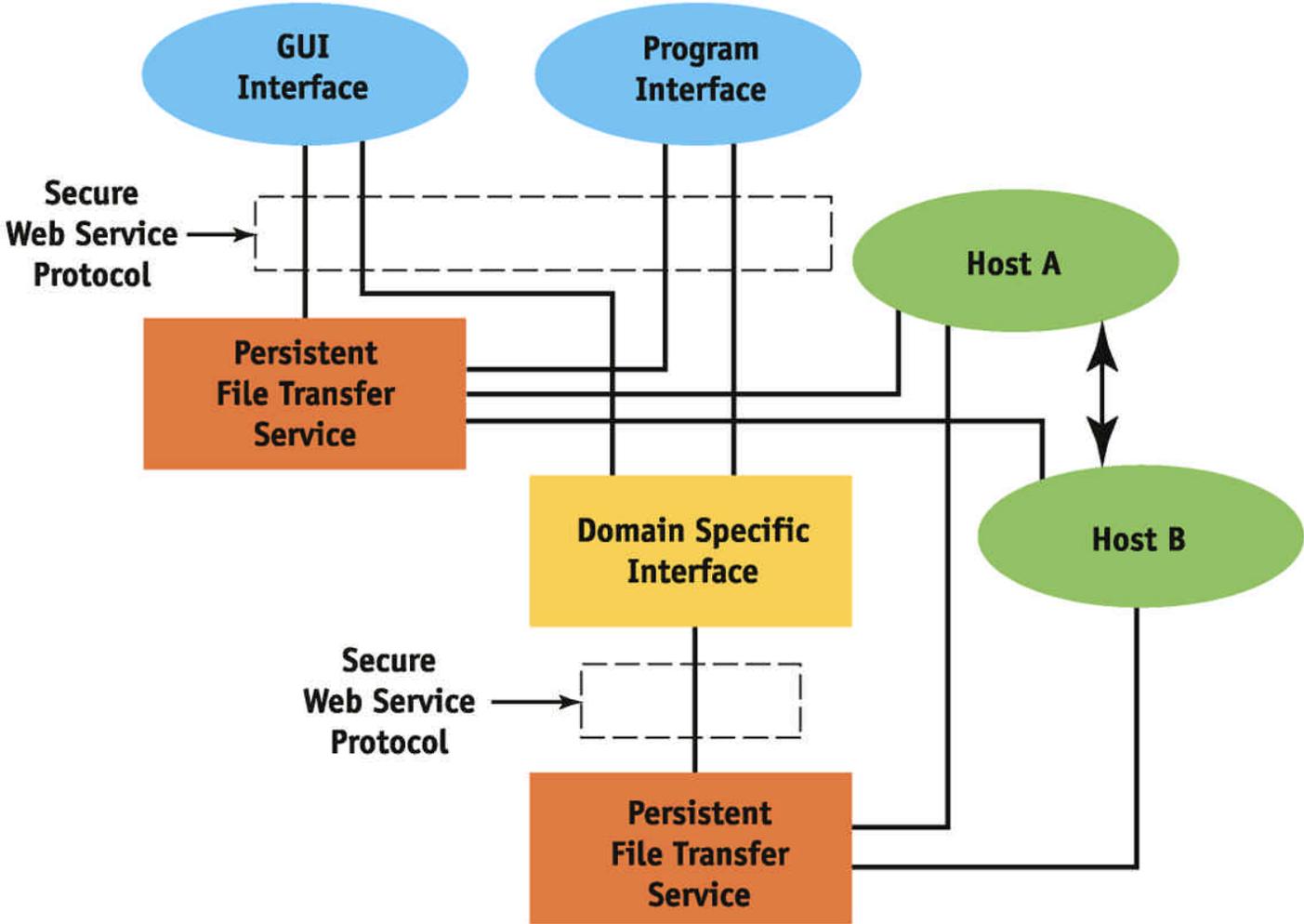


- Submission and tracking of computational workflow
- Reliable movement of data files
- Human interaction with the computational workflow
- Human-to-human interactions
- File-sharing

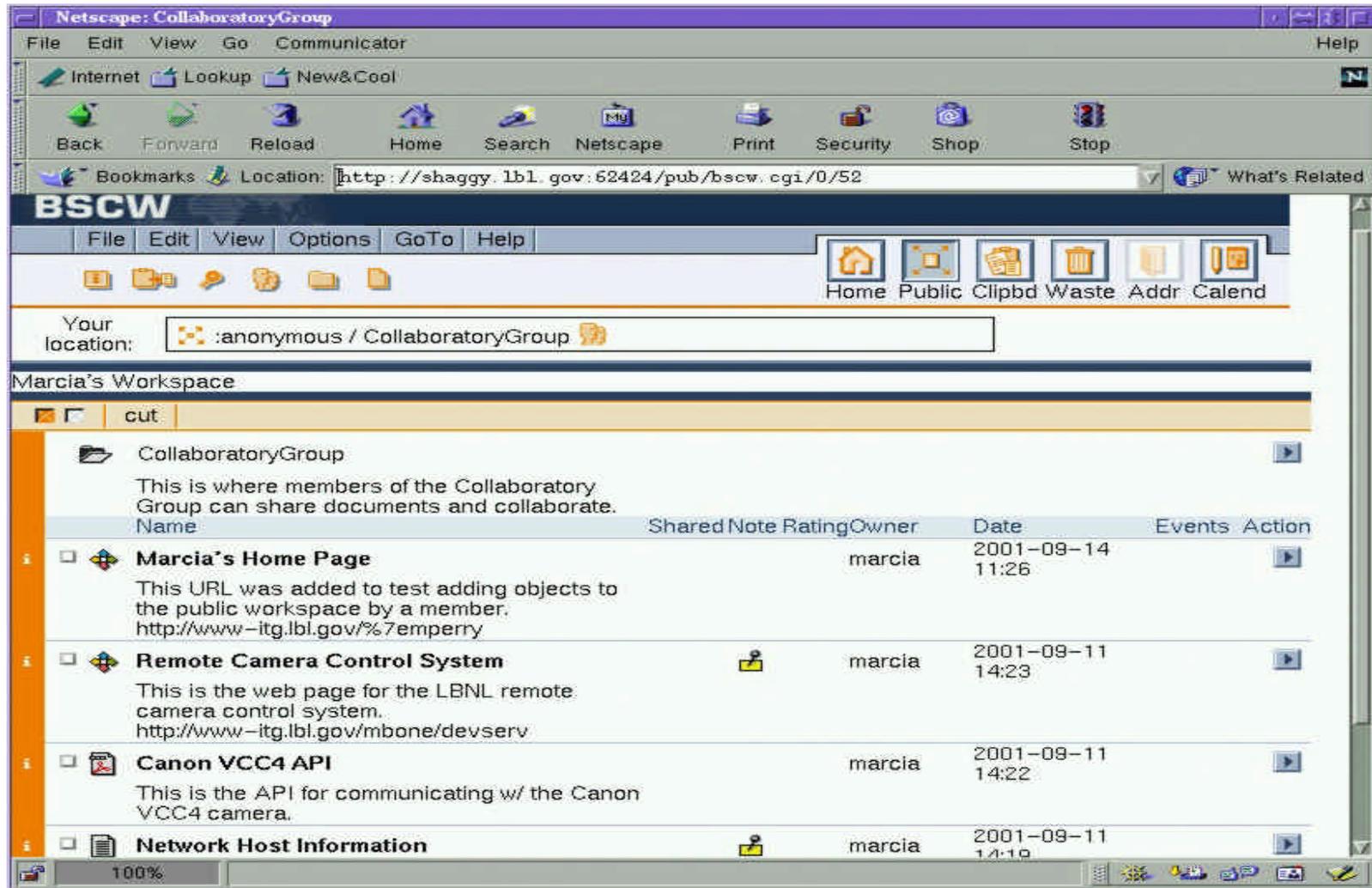
# PCCE Workflow



# Reliable/Persistent File Transfer Services



# PCCE File Sharing

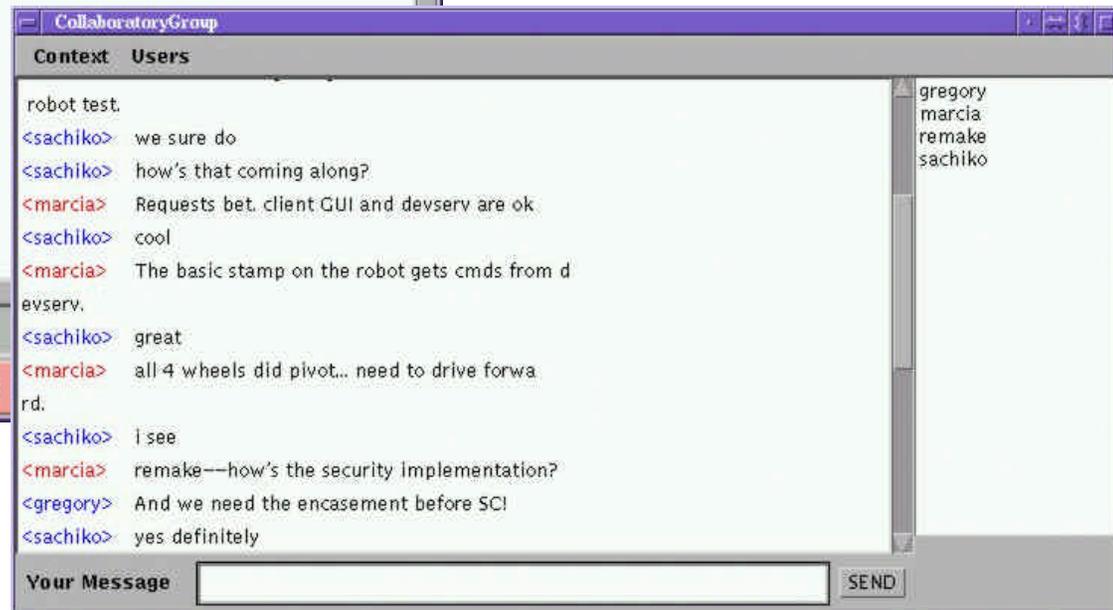
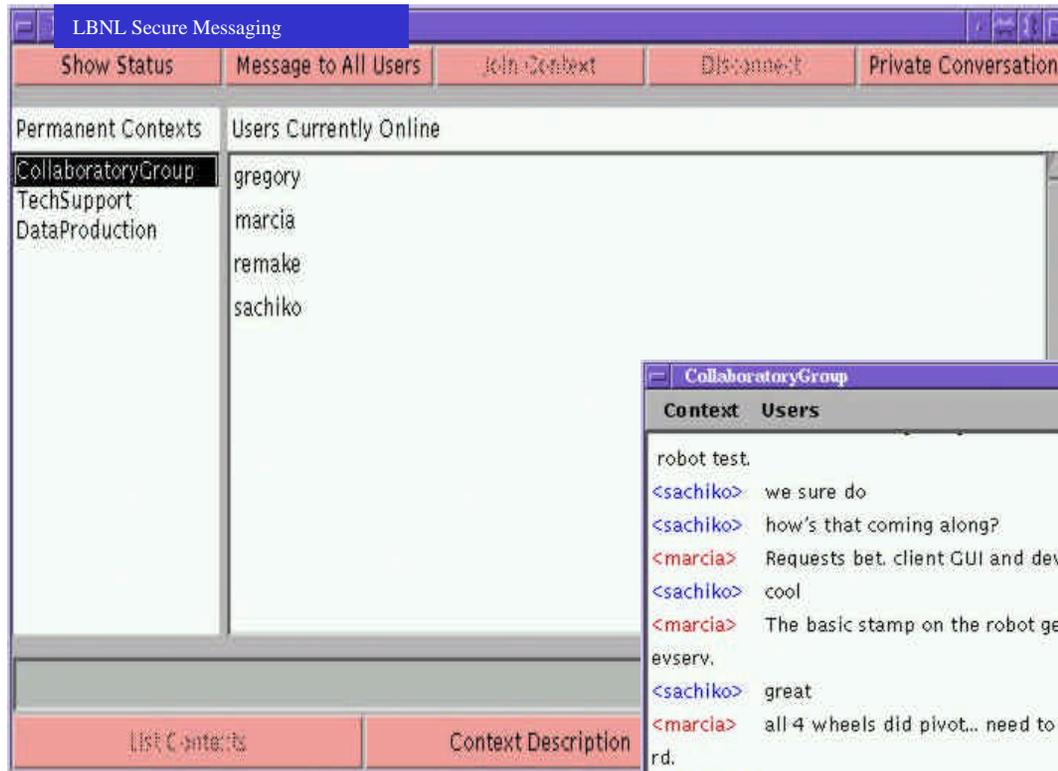


The screenshot shows a Netscape browser window titled "Netscape: CollaboratoryGroup". The address bar displays the URL `http://shaggy.lbl.gov:62424/pub/bscw.cgi/0/52`. The main content area shows the "BSCW" workspace interface, which includes a menu bar (File, Edit, View, Options, GoTo, Help) and a toolbar with icons for Home, Public, Clipbd, Waste, Addr, and Calend. Below the toolbar, the "Your location" is set to `:anonymous / CollaboratoryGroup`. The workspace content is titled "Marcia's Workspace" and shows a file list with columns for Name, Shared Note, Rating, Owner, Date, Events, and Action. The file list contains the following entries:

| Name                                | Shared Note | Rating | Owner  | Date             | Events | Action |
|-------------------------------------|-------------|--------|--------|------------------|--------|--------|
| <b>Marcia's Home Page</b>           |             |        | marcia | 2001-09-14 11:26 |        |        |
| <b>Remote Camera Control System</b> |             |        | marcia | 2001-09-11 14:23 |        |        |
| <b>Canon VCC4 API</b>               |             |        | marcia | 2001-09-11 14:22 |        |        |
| <b>Network Host Information</b>     |             |        | marcia | 2001-09-11 14:19 |        |        |

National Collaboratories Program Meeting

# PCCE Messaging



# Project Milestones

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- Year 1
  - Evaluate existing collaboration tools
  - Prototype integration of Grid services (file transfer service)
  - Install Condor-G and API to Condor scheduler
  - Prototype workflow model for Supernova Factory
- Year 2
  - Reliable and recoverable event reporting in Condor's DAGman
  - Integrate Grid services
  - Integrate WebDAV-based services and SOAP interfaces for workflow